App. No. 10/804,809
Office Action Dated June 8, 2005

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 1-3 are canceled without prejudice or disclaimer. Claims 4-11 remain pending.

I. Specification amendments

The specification has been amended to correct typographical errors appearing in the text. The amendments are supported by the original disclosure and no new matter has been added.

II. Claim rejections

Claims 1-8 are rejected under 35 USC 102(b) as being anticipated by US 4,556,025 to Morita.

In addition, claims 1-3, 7 and 8 are rejected under 35 USC 102(b) as being anticipated by US 5,636,609 to Fujiyoshi.

In addition, claims 9-11 are rejected under 35 USC 103(a) as being unpatentable over Morita in view of US 6,318,316 to Tsukui et al. (Tsukui).

In addition, claims 4-6 are rejected under 35 USC 103(a) as being unpatentable over Fujiyoshi in view of Morita.

Applicants respectfully traverse each of the rejections and reconsideration is requested in view of the following.

A. Claims 4-6

Claim 4 is patentable over Morita, and Fujiyoshi in view of Morita.

Morita does not teach every feature recited in claim 4. Therefore, Morita does not anticipate claim 4. In particular, Morita does not teach a working fluid port positioned at the second end of the engine portion, and a plurality of working fluid channels connecting the working fluid port to the plurality of valves.

Morita discloses an engine with an engine valve mechanism having valve disabling capability. In Morita, the valve disabling mechanisms are mechanically actuated using solenoids 20 and push rods 21 to actuate the locking plates 16 (see, e.g., column 4, lines 42-47; Figure 1).

The disabling mechanism in Morita is not fluid actuated, and the Morita engine does not utilize a working fluid port and a plurality of working fluid channels as recited in claim 4.

Morita does discuss a valve actuating mechanism found in British Patent No. 1,275,328 that uses hydraulically actuated plungers (see column 1, lines 16-42). However, there is no disclosure that the mechanism in British Patent No. 1,275,328 is configured as recited in claim 4.

Therefore, claim 4 is not anticipated by Morita.

With respect to Fujiyoshi in view of Morita, Fujiyoshi discloses an engine with cylinder shut-off. The cylinders C1-C4 include valves that are controlled by hydraulically operated valve operation and stoppage switchover means 40(1-4) (See, e.g., column 8, lines 26-43). As shown in Figures 12 and 13, the hydraulic channels 92, 94 and the switchover means 40(1-4) are disposed above the valves (see, e.g., column 13, lines 56-61). There is no disclosure of a cam chain case disposed adjacent to a first end of the engine portion and a working fluid port positioned at the second end of the engine portion. Fujiyoshi is silent concerning any particular positional relationship between a cam chain case and a working fluid port, especially the relationship as claimed.

Further, Fujiyoshi does not teach at least one valve of the cylinder adjacent the cam chain case being in fluid isolation from the working fluid port. Instead, in Fujiyoshi, all of the switchover means 40(1-4), and thus all of the valves, communicate with the hydraulic system. Column 17, lines 4-10 and 54-67 describe the operation of the cylinders in the embodiments shown in Figures 17 and 18 of Fujiyoshi. As is apparent from the description, for each cylinder, each valve is in communication with the hydraulic system. Therefore, Fujiyoshi does not include at least one of a cylinder adjacent a cam chain case that is in fluid isolation from a working fluid port.

Morita does not remedy the deficiencies of Fujiyoshi. As discussed above, Morita discloses mechanically actuated valve disabling mechanisms. Morita does not disclose a working fluid port or working fluid channels. Therefore, Morita does not teach or suggest providing at least one valve of a cylinder adjacent a cam chain case that is in fluid isolation from a working fluid port.

Morita actually teaches away from the use of a hydraulic system, by suggesting that the use of a hydraulic system creates significant problems (see column 1, lines 43-54). Therefore,

there is no teaching or suggestion of even combining Morita with a hydraulic system disclosed by Fujiyoshi.

For at least these reasons, claim 4 is patentable over Morita and Fujiyoshi in view of Morita. Claims 5 and 6 depend from claim 4 and are patentable for the reasons given for claim 4 and need not be separately distinguished. Applicants do not concede the propriety of the rejections to claims 5 and 6.

Claims 7-11

Claim 7 is patentable over Morita and Fujiyoshi.

Morita does not teach every feature recited in claim 7. Therefore, Morita does not anticipate claim 7. In particular, Morita does not teach an engine where at least one combustion chamber can be completely shut off and one combustion chamber can be partially shut off.

Morita discloses an engine with a plurality of combustion chambers with intake valves and exhaust valves and valve disabling mechanisms. Because each chamber includes one intake valve and one exhaust valve, the chambers are either on or off. As a result, Morita does not disclose partial combustion chamber shut-off. Further, Morita does not disclose that a chamber that can be completely shut off is positioned between a shut off mechanism and the combustion chamber that can be partially shut off.

Fujiyoshi does not teach every feature recited in claim 7. Therefore, Fujiyoshi does not anticipate claim 7. In particular, Fujiyoshi does not teach an engine with a shut off mechanism disposed at a first end of the engine, and where a chamber that can be completely shut off is positioned between a shut off mechanism and the combustion chamber that can be partially shut off.

In Fujiyoshi, there is no disclosure that any portion of the shut off mechanism is disposed at a first end of the engine. Instead, Fujiyoshi shows that all components of the shut off mechanism are disposed above the cylinder head 20 and cylinder block of the engine (see, e.g., Figure 12). Since Fujiyoshi does not disclose a shut off mechanism at a first end, Fujiyoshi does not teach a chamber that can be completely shut off being positioned between a shut off mechanism disposed at a first end and a combustion chamber that can be partially shut off.

For at least these reasons, claim 7 is patentable over Morita and Fujiyoshi. Claims 8-11 depend from claim 7 and are patentable for the reasons given for claim 4 and need not be

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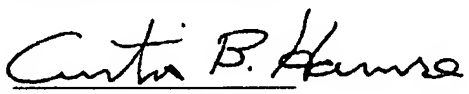
separately distinguished. Applicants do not concede the propriety of the rejections to claims 8-11.

III. Conclusion

In view of the above, Applicants believe that the claims are allowable. Favorable reconsideration in the form of a Notice of Allowance is requested. Any questions or concerns regarding this communication can be directed to the undersigned attorney at (612) 455-3800.

Respectfully Submitted,

Dated: September 8, 2005



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